

Well Disinfection

Information provided by Department for Public Health and Energy and Environment Cabinet's Division of Water

Drilled Wells

- Using the following table, determine the amount of water in the well by multiplying the gallons per foot by the depth of the well in feet. For example, a well with a 6-inch diameter contains 1.5 gallons of water per foot. To determine the number of gallons in a well that is 120 feet deep, multiply 1.5 by 120 ($1.5 \times 120 = 180$).
- For each 100 gallons of water in the well, use the amount of chlorine (liquid or granules) indicated. For example, 180 gallons of water \times 2 ounces of chlorine granules (per 100 gallons of water) = 3.6 ounces of granules (use 4 ounces). Mix the total amount of chlorine in about 10 gallons of water. Be sure dry granules or tablets are completely dissolved before adding them to the well.
- Pour the solution into the top of the well before the seal is installed.
- Connect a hose from a faucet on the discharge side of the pressure tank to the well casing top. Start the pump. Spray the water back into the well and wash the inside of the casing for at least 15 minutes.
- Open every faucet in the system and let water run until the smell of chlorine can be detected. Then close all the faucets and seal the top of the well.
- Let stand for several hours, preferably overnight.
- After you have let the water stand, operate the pump, discharging water from all outlets (turning on ALL faucets) until all odor of chlorine disappears. Adjust the flow of water from faucets or fixtures that discharge into septic tank systems to a low flow to avoid overloading the disposal system.

How to Disinfect a Drilled Well

Diameter of Well (in inches)	Gallons Per Foot
3	.37
4	.65
5	1.0
6	1.5
8	2.6
10	4.1
12	6.0

Amount of disinfectant required for each 100 gallons of water

Laundry bleach (5.25% chlorine).....3 cups*

Hypochlorite granules (70% chlorine).....2 ounces**

8 tablets = 2 ounces (70% hypochlorite)

*1 cup = 8 ounce measuring cup

**1 ounce = 2 heaping tablespoons (Tbl) of granules

Dug or Bored Wells

- The amount of water in the well determines how much disinfectant (bleach or granules) is required. Use the table below to make your calculations.
- To determine the exact amount of chlorine liquid or granules to use, multiply the amount of disinfectant indicated (according to the diameter of the well) by the depth of the well. If you plan to use liquid chlorine, for example, a well 5 feet in diameter would require 4-1/2 cups of bleach per foot of water. If the well is 30 feet deep, multiply 4-1/2 by 30 to determine the total cups of bleach required ($4\frac{1}{2} \times 30 = 135$); 135 cups = 8.44 gallons (16 cups = 1 gallon). Use 8.44 gallons. Here is an example using granules: a well 6 feet in diameter requires 4 ounces of chlorine granules or powder per foot of water. If the well is 40 feet deep, multiply 4 (ounces) by 40 (feet). This well would require 160 ounces of granules or powder, or 10 pounds.
- Add this total amount of liquid or dry bleach to about 10 gallons of water. Splash the mixture around the lining or wall of the well. Be certain the bleach solution contacts all parts of the well.
- Seal the well top.
- Open all faucets and pump water until a strong odor of chlorine is noticeable at each faucet. Then stop the pump and allow the solution to remain in the well overnight.
- After it stands overnight, operate the pump, discharging water from all outlets (turning on ALL faucets) until the chlorine odor disappears. Adjust the flow of water faucets or fixtures that discharge to septic tank systems to low flow to avoid overloading the disposal system

How to Disinfect a Dug or Bored Well

8 Hypochlorite Tablets = 2 Ounces

Diameter of Well (in feet)	Amount of 5.25% Laundry Bleach Per Foot of Water	Amount of 70% Chlorine Granules Per Foot of Water
3	1-1/2 cups	1 ounce
4	3 cups	2 ounces
5	4-1/2 cups	3 ounces
6	6 cups	4 ounces
7	9 cups	6 ounces
8	12 cups	8 ounces
10	18 cups	12 ounces

Driven Wells: All that is necessary to restore a driven or sand-point well is to pump it out thoroughly. If the well has a pit, pump out any accumulated water.